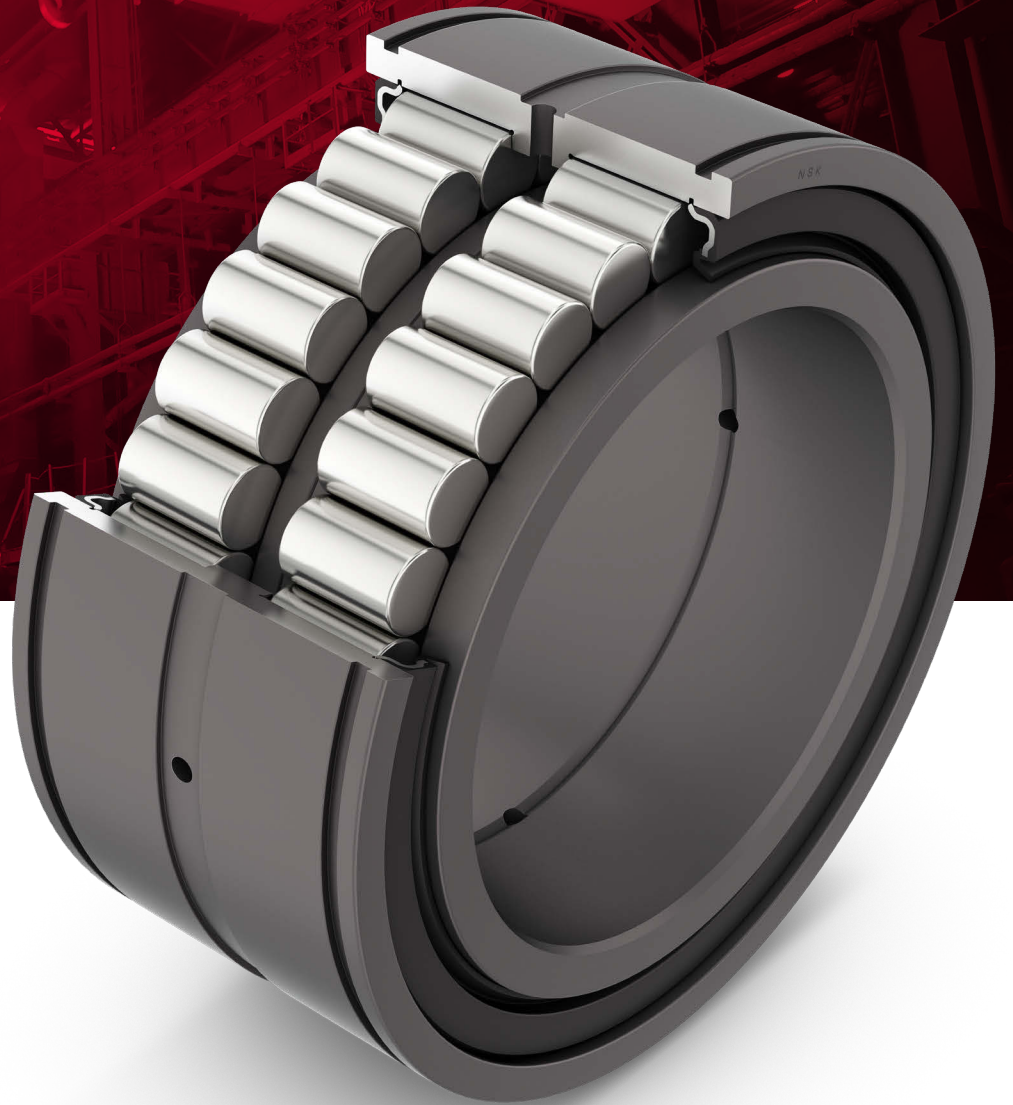
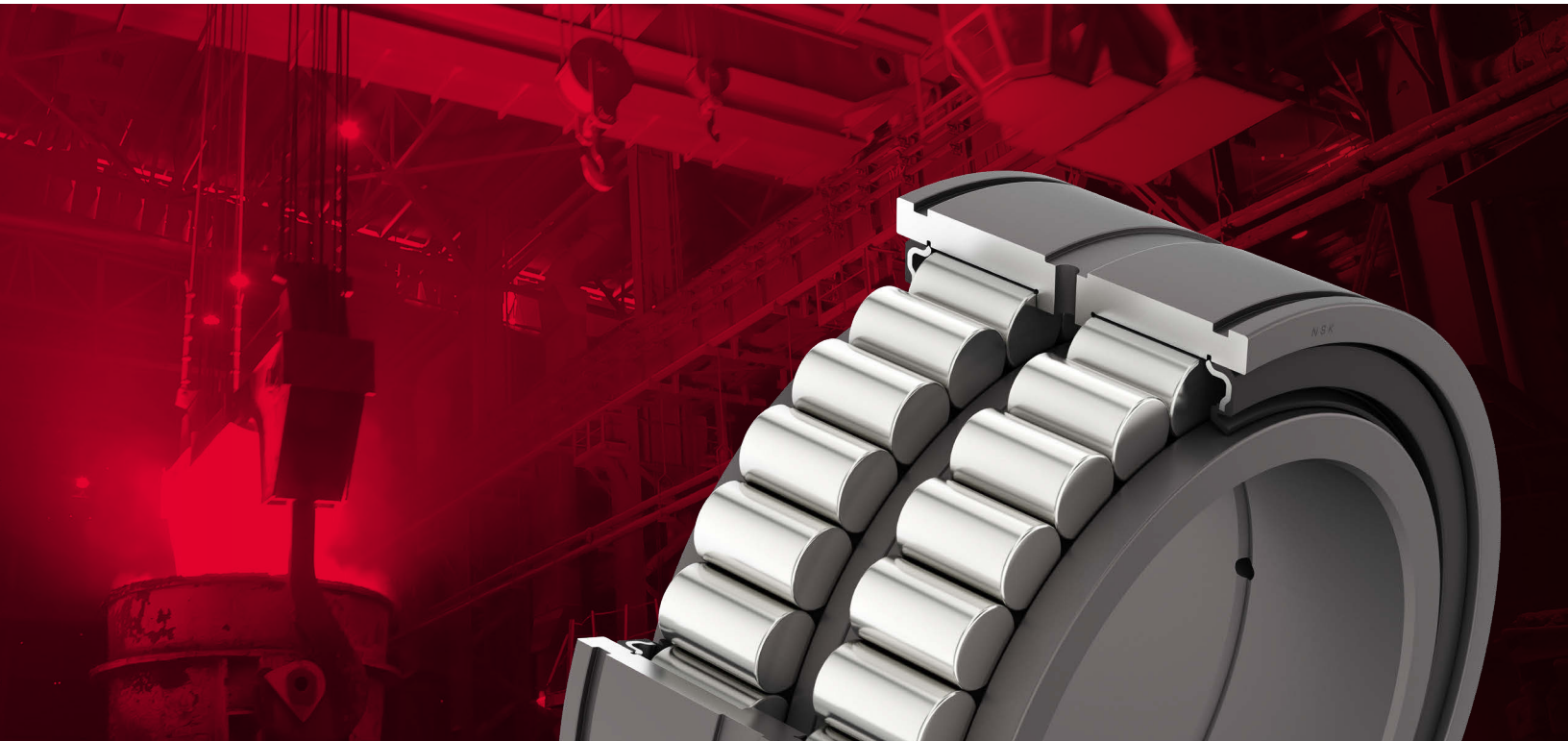


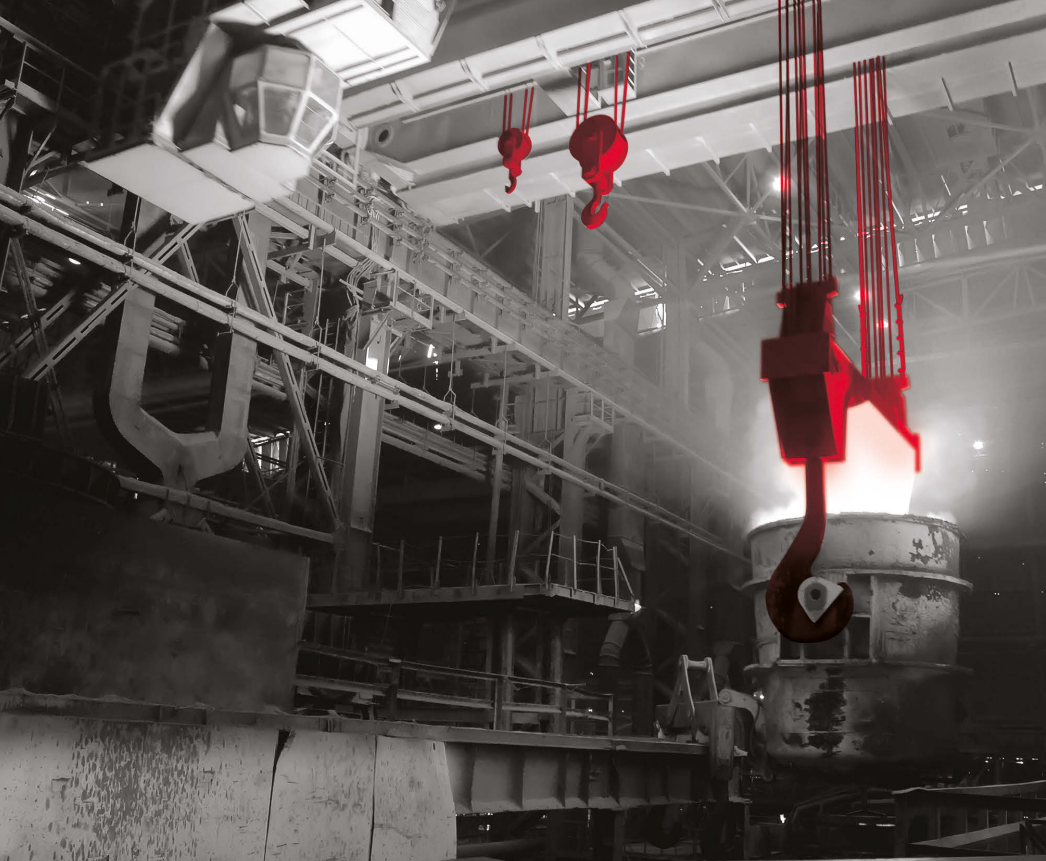
NSK

CYLINDRICAL ROLLER BEARINGS FOR CRANE SHEAVES

FULL COMPLEMENT DESIGN EQUIPPED WITH ADVANCED NSK SEALS



STAY IN MOTION. STAY IN CONTROL.



DOING THE HEAVY LIFTING

BEARINGS FOR INDUSTRIAL CRANES

As the powerlifters of heavy industry, cranes keep material and processes in continual motion for mining, construction, on-and off-shore recovery, and overhead handling in steel and paper mills. For the bearings used in crane sheaves and heavy-duty sheave blocks – supporting the return and guidance of crane main cables - radial loads can be immense. Depending on crane design and the application, axial loads and tilting moments as well corrosive and contaminant-laden operating environments must also be endured.

Meeting these challenges squarely, NSK's special design double-row full-complement cylindrical roller bearings are engineered to exceed operating expectations with:

- › Optimized design, with high radial and axial load capacities
- › Corrosion resistant phosphate coating for extreme durability
- › Advanced seals to ensure clean, contaminant-free operation

With our bearings for crane sheaves, NSK delivers robust performance with predictably reliable and cost-effective performance.

KEEPING MASSIVE LOADS IN MOTION

NSK's special design double-row full-complement cylindrical roller bearings are ideally designed for the rigor of crane sheave applications, contending with extreme loads and volatile operating conditions to deliver both optimized performance and operating life.



Phosphate surface treatment ensures extended resistance to corrosion

Contact seal increases resistance to entry of water or foreign substances

Grease is factory-packed into the bearing

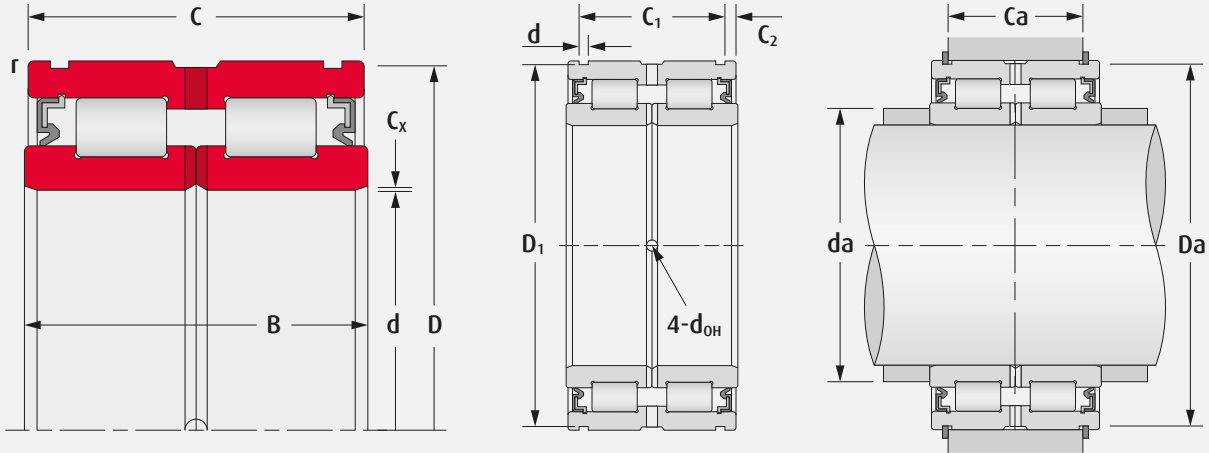
Inner and outer ring lubrication features facilitate grease replenishment, even during operation

Optimized full-complement design yields high radial and axial load carrying capacity

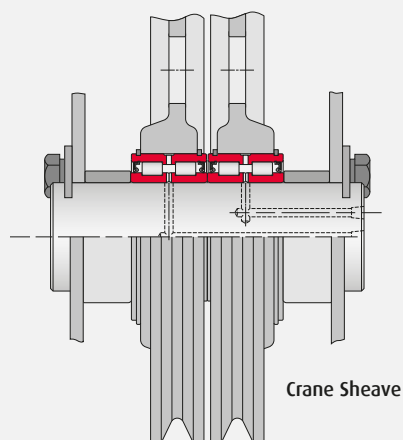
PROVEN ADVANTAGES

- › Accommodates extremely high radial and axial loads with high rigidity
- › Phosphate coating permits use in a wide range of environments with excellent corrosion and rust resistance
- › Advanced contact seal prevents grease leakage and ingress of water and external contaminants
- › Simple re-lubrication – even during operation – with lubrication features

RECOMMENDED SHAFT AND HOUSING FITS



BEARING NO.	BOUNDARY DIMENSIONS						BASIC LOAD RATINGS	
	mm						N	
	d	D	B	C	C _x (min)	r (min)	Dynamic	Static
RS-5008DSE7NA	40	68	38	37	0.4	0.6	79 500	116 000
RS-5009DSE7NA	45	75	40	39	0.4	0.6	95 500	144 000
RS-5010DSE7NA	50	80	40	39	0.4	0.6	100 000	158 000
RS-5011DSE7NA	55	90	46	45	0.6	0.6	118 000	193 000
RS-5012DSE7NA	60	95	46	45	0.6	0.6	123 000	208 000
RS-5013DSE7NA	65	100	46	45	0.6	0.6	128 000	224 000
RS-5014DSE7NA	70	110	54	53	0.6	0.6	171 000	285 000
RS-5015DSE7NA	75	115	54	53	0.6	0.6	179 000	305 000
RS-5016DSE7NA	80	125	60	59	0.6	0.6	251 000	430 000
RS-5017DSE7NA	85	130	60	59	0.6	0.6	256 000	445 000
RS-5018DSE7NA	90	140	67	66	1.0	0.6	305 000	540 000
RS-5019DSE7NA	95	145	67	66	1.0	0.6	310 000	565 000
RS-5020DSE7NA	100	150	67	66	1.0	0.6	320 000	585 000
RS-5022DSE7NA	110	170	80	79	1.1	1.0	385 000	695 000
RS-5024DSE7NA	120	180	80	79	1.1	1.0	400 000	750 000
RS-5026DSE7NA	130	200	95	94	1.1	1.0	535 000	1 000 000



Crane Sheave

Load Conditions		Tolerance range		Recommended clearance
		shaft	housing	
Outer ring rotating	Heavy load with thin housing	g6 or h6	P7	C3
	Normal load or heavy load		N7	C3
	Light load or fluctuating load		M7	CN

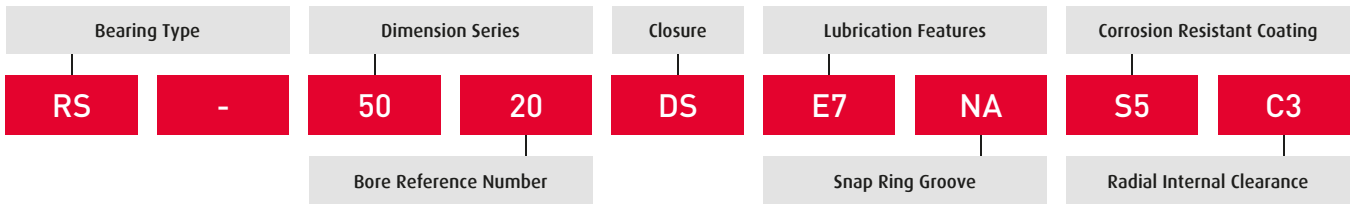
In the assembly example shown, the bearings have rotating outer rings. The outer ring is fitted into the housing by interference, and the inner ring fitted on the shaft with slight clearance. The inner ring is secured with an endplate. A lubrication hole on the shaft facilitates grease replenishment.

SNAP RING GROOVE DIMENSIONS				OIL HOLE	ABUTMENT DIMENSIONS			SNAP RING DIN471	MASS
mm									kg
C_1	C_2	b	D_1	d_{OH}	da (min)	Da (max)	Ca		(approx)
32.2	2.4	2.7	65.8	2.5	43.5	63	27	68 x 2.5	0.56
34.2	2.4	2.7	72.8	2.5	48.5	70	29	75 x 2.5	0.70
34.2	2.4	2.7	77.8	2.5	53.5	75	29	80 x 2.5	0.76
40.2	2.4	3.2	87.4	3.0	60.0	85	34	90 x 3.0	1.17
40.2	2.4	3.2	92.4	3.0	65.0	90	34	95 x 3.0	1.25
40.2	2.4	3.2	97.4	3.0	70.0	95	34	100 x 3.0	1.32
48.2	2.4	4.2	107.1	3.0	75.0	105	40	110 x 4.0	1.87
48.2	2.4	4.2	112.1	3.0	80.0	110	40	115 x 4.0	2.00
54.2	2.4	4.2	122.1	3.0	85.0	120	46	125 x 4.0	2.65
54.2	2.4	4.2	127.1	3.0	90.0	125	46	130 x 4.0	2.75
59.2	3.4	4.2	137.0	4.0	96.0	135	51	140 x 4.0	3.75
59.2	3.4	4.2	142.0	4.0	101.0	140	51	145 x 4.0	3.95
59.2	3.4	4.2	147.0	4.0	106.0	145	51	150 x 4.0	4.05
70.2	4.4	4.2	167.0	5.0	116.5	165	62	170 x 4.0	6.10
71.2	3.9	4.2	176.0	5.0	126.5	175	63	180 x 4.0	7.00
83.2	5.4	4.2	196.0	5.0	136.5	195	75	200 x 4.0	10.60

1. Additional sizes, including shield type, can be provided upon request. For details, please contact NSK.
2. Grease is factory-packed into the bearing. NSK recommends lithium grease for replenishing.
3. Snap rings are not produced by NSK.
4. Dimension Ca applies when DIN 471 snap rings are used.

DESIGNATION SYSTEM

FULL-COMPLEMENT CYLINDRICAL ROLLER BEARINGS FOR CRANE SHEAVES



DESIGNATION		ATTRIBUTE
Bearing Type	RS	double-row full-complement cylindrical roller bearing
Dimensional Series	50	heavy-duty type, wide
Bore Reference Number		multiply x 5 for bore diameter in mm
Closures	blank	open bearing
	DS	contact seal
Lubrication Features	blank	lubrication groove and holes in the inner ring
	E7	lubrication groove and holes in the inner and outer ring

DESIGNATION		ATTRIBUTE
Snap Ring Groove	NA	snap ring grooves in the outer ring in accordance to DIN 471
Coating	S5	corrosion resistant phosphate coating
Radial Internal Clearance	blank	normal clearance
	C3	greater than normal



IMPROVEMENT PAYS

END-TO-END SERVICE DELIVERS CUSTOMER SUCCESS

Improvement never ends. And we never stop looking for better ways to support our customers in a complete, collaborative and continuous way. The focus of NSK isn't simply on a quick fix for immediate gain – it's about incremental and sustainable improvement to deliver long-term benefits.

When NSK is on-site, we're there to understand our customers' challenges and identify problems contributing to frequent bearing replacement, breakdowns caused by poor specification, high energy costs from inefficient product selection and lost production because of downtime. We collaborate with our customers to institute an **Asset Improvement Program (AIP)** that encompasses process and maintenance management, diagnostic and educational support to deliver measurable gains in output and cost-efficiency.

With NSK, our customers embark on a critical path to realizing improvements in equipment, productivity, people and financial performance.





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